

Title (en)  
LOW-FOAM ALKALI-STABLE AMPHOTERIC SURFACE ACTIVE AGENTS

Publication  
**EP 0263911 B1 19910821 (EN)**

Application  
**EP 87102958 A 19870302**

Priority  
US 90126886 A 19860827

Abstract (en)  
[origin: EP0263911A1] Surface active agents of the formula <CHEM> wherein R is selected from the group consisting of alkyl, aryl, alkylaryl groups of 2-18 carbons and alkoxymethyl wherein the alkoxy group is of 2-18 carbon atoms, R<2> and R<3> are individually selected from the group consisting of methyl; alkyl of 2 to 6 carbon atoms wherein said alkyl group is substituted by an electron-donating group on the beta carbon atoms thereof; polyoxyethylene and polyoxypropylene or R<2> and R<3> may jointly form a -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>- or CH<sub>2</sub>CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>- group so as to form, together with the nitrogen atom to which they are bound, a morpholine or thiomorpholine ring Q is a covalent bond or <CHEM> wherein R<1> is independently selected from the same groups as R<2> and R<3> or is <CHEM> wherein M is hydrogen or an alkali metal cation, n is 0 or 1, and X is hydrogen or an electron-donating group have good foaming properties in highly alkaline solutions.

IPC 1-7  
**C07C 309/18**; **C07D 295/10**; **C11D 1/92**

IPC 8 full level  
**C11D 1/92** (2006.01); **C11D 3/04** (2006.01)

CPC (source: EP US)  
**C11D 1/92** (2013.01 - EP US); **Y10S 516/05** (2013.01 - EP US)

Cited by  
EP0439186A3; EP0426177A1; EP0309421A3; US6277801B1; WO9938942A1; WO2019154797A1; US11473034B2

Designated contracting state (EPC)  
BE CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)  
**EP 0263911 A1 19880420**; **EP 0263911 B1 19910821**; CA 1326024 C 19940111; DE 3772318 D1 19910926; ES 2025566 T3 19920401; JP 2612155 B2 19970521; JP H08176591 A 19960709; JP H083116 B2 19960117; JP S6357695 A 19880312; US 4891159 A 19900102; US 4978781 A 19901218

DOCDB simple family (application)  
**EP 87102958 A 19870302**; CA 530712 A 19870226; DE 3772318 T 19870302; ES 87102958 T 19870302; JP 17343095 A 19950710; JP 4505987 A 19870227; US 41227489 A 19890925; US 90126886 A 19860827